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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,945	11/18/2003	Frederick Douglis	YOR920030430US1	4452

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EXAMINER	
MANSFIELD, THOMAS L	
ART UNIT	**PAPER NUMBER**
3623	

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04/01/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,945	DOUGLIS ET AL.	
	Examiner	Art Unit	
	THOMAS MANSFIELD	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. This First Office action is in reply to the Application filed on 18 November 2003.

2. Claims 1-24 are currently pending and have been examined.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. On page 2, line 12 through page 3, line 2 in the Background of the Invention in the Specification recites prior art references to Douglis et al, Weiser et al, and Zeng et al. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-14 and 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Chiu (U.S. Pub. No. 2003/0158609).

With regard to Claims 1, 16, and 17, Chiu teaches *a method, apparatus* (power management system, user interfaces) (see at least paragraph 0029) *and computer program product* (software functions) (see at least paragraph 0033) *in a data processing system* (data communications)*, for controlling execution of applications, the method comprising* (multi-function device, PDA) (see at least paragraph 0016):

- *setting a policy for an application* (user may specify, via user power options **110**), *wherein the policy indicates how to control execution of the application while the data processing system is using a limited resource* (the system is configured to preset a minimum power level cutoff for each component) (see at least paragraph 0021)
- *responsive to initialization of the application while the data processing system is using the limited resource, controlling when to execute the application as determined by the policy* (may configure the system to disable the PDA components when the available power drops below 40%) (see at least paragraph 0022).
- *responsive to execution of the application while the data processing system is using the limited resource, controlling access of the application to specific elements of the data processing system that affect the limited resource* (a user may configure the system to disable the transmission of messages when the power drops below a given percentage, but to keep a receiver function active) (see at least paragraph 0023).

With regard to Claims 2 and 18, Chiu teaches *wherein the limited resource is battery power* (battery powered devices) (see at least paragraph 0003)..

With regard to Claims 3 and 19, Chiu teaches *wherein the policy indicates whether to execute the application* (enable), *terminate the application* (disable), *delay execution of the application* (specify how long to wait), *or suspend execution of the application* (low-power standby) (see at least paragraph 0006).

With regard to Claims 4 and 20, Chiu teaches *wherein setting a policy includes prompting a user of the data processing system for a policy decision* (the user may be provided the option of specifying the power-priority of each component in rank-order) (see at least paragraph 0031).

With regard to Claims 5 and 21, Chiu teaches *wherein controlling when to execute the application includes selectively suspending, terminating, or deferring invocation of the application until a specified element of the data processing system is non-idle* (the user may specify how long to wait before turning the display off during periods of inactivity) (see at least paragraph 0006).

With regard to Claims 6 and 22, Chiu teaches *wherein controlling access of the application to specific elements of the data processing system includes stalling access to a specified element of the data processing system by the application until the specified element is non-idle* ("miser" profile) (see at least paragraph 0007).

With regard to Claims 7 and 23, Chiu teaches *wherein controlling access of the application to specific elements of the data processing system includes suspending execution of the application* (standby mode) *until a specified element of the data processing system is non-idle* (see at least paragraph 0008).

With regard to Claims 8 and 24, Chiu teaches *wherein controlling access of the application to specific elements of the data processing system includes deferring execution of the application to maintain a designated rate of usage for a specified element of the data processing system* (to disable the transmission of messages when the power drops below a given percentage, but to keep a receiver function active) (see at least paragraph 0023).

With regard to Claim 9, Chiu teaches *building a profile of resource consumption for the application* (see at least paragraph 0020).

With regard to Claim 10, Chui teaches *adding the application to a list of permitted applications if the application is to be always permitted* (see at least paragraph 0020).

With regard to Claim 11, Chui teaches *adding the application to a list of banned applications if the application is to be always denied* (Data loss) (see at least paragraph 0018).

With regard to Claim 12, Chui teaches *a method, in a data processing system, for controlling execution of applications, the method of comprising:*

- *responsive to moving to battery power, identifying at least one application* (disk drive may be set to turn off during periods of inactivity when the device is operated on battery power, but to remain on when the device is connected to a power supply) (see at least paragraph 0007).
- *determining whether to terminate or suspend the at least one application* (see at least paragraphs 0007 and 0019).
- *responsive to a determination to terminate the at least one application, terminating the at least one application* (see at least paragraphs 0007 and 0019).

With regard to Claim 13, Chui teaches *registering the at least one application to restart when the data processing system is no longer using battery power* (disk drive may be set to turn off during periods of inactivity when the device is operated on battery power, but to remain on when the device is connected to a power supply) (see at least paragraph 0007).

With regard to Claim 14, Chui teaches responsive to a determination to suspend the application, suspending the at least one application (see at least paragraph 0015).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chui as applied to claims 1-14 and 16-24 above, and further in view of Yang et al (Yang) (U.S. 7,010,714).

With regard to Claim 15, Chui teaches the method, apparatus, and computer program product above in claims 1-14 and 16-24. Chui does not specifically teach *registering the at least one application to restart when the data processing system is no longer using battery power*. Yang teaches *registering the at least one application to restart when the data processing system is no longer using battery power* in analogous art of dynamically adjusting power consumption of a CPU in a computer system for the purposes of, "a mobile CPU runs at a speed virtually identical to that of a desktop system when the notebook computer is connected to an AC outlet" (see at least column 2, lines 5-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the dynamic adjusting power consumption of a CPU as taught by Yang with the power saving management for portable devices method of Chui. One of ordinary skill in the art would have been motivated to do so for the benefit of increasing the frequency and voltage for the processor while conserving battery life (Yang, column 2, lines 5-10).

Conclusion

8. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Ikeda (U.S. 5,504,908) discloses a power saving control system for computer system.
- Douglis et al (U.S. 5,493,670) discloses an adaptive disk spin-down method for managing the power distributed to a disk drive in a laptop computer.
- Zeng et al, "ECOSystem: Managing Energy as a First Class Operating System Resource", ACM 1-58113-574-2, 2002, discloses the Currentcy Model that unifies fair allocation of available energy among applications.
- Rollins et al, "Power-Aware Data Management for Small Devices", WoWMoM'02, September 28, 2002, Atlanta, Georgia, discloses the benefit of using power-aware schemes to automatically manage content across a collection of devices and prolong data availability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS MANSFIELD whose telephone number is (571)270-1904. The examiner can normally be reached on Monday-Thursday 8:30 am-6 pm, alt. Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Mansfield/
Examiner, Art Unit 3623

25 March 2008
Thomas Mansfield

/Beth Van Doren/
Primary Examiner, Art Unit 3623